A Study to Validate the Malnutrition Clinical Characteristics and Quantify Dietitian Staffing Levels to Improve Medical Outcomes

Courtney Bliss, MS RDN CNSC
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Disclosures

Current fellow of The Academy of Nutrition and Dietetics Foundation
  • Supporting study execution
Learning Outcomes

Upon completion of this presentation, attendees will be able to describe current:

- MCC/NFPE evidence
- RD staffing metrics
- AND malnutrition initiatives
- needs in acute care nutrition assessment and diagnosis of malnutrition

Overview

- About me
- Malnutrition and Assessment
- Outcomes
- Staffing
- MCC and Staffing Study
- Advanced research training opportunities
- Questions
Current Status of Malnutrition

Incidence

- Approx 4% hospitalized pediatric patients are malnourished
- An estimated 50% of adult hospitalized patients are at risk

Underdiagnosed, undertreated in hospitalized patients

Longer LOS and higher hospital costs

No gold standard for diagnosis
Current Nutrition Assessment

Screening tools

- STAMP, STRONGKids
- MST

Subjective Global Assessment

Nutrition Focused Physical Exam (NFPE)

- Fat & Muscle Wasting
- Micronutrient Deficiencies

Biochemical markers

- Albumin, prealbumin, CRP
Malnutrition Clinical Characteristics

MCC for **adults** include insufficient energy intake, weight loss, loss of muscle mass, loss of subcutaneous fat, fluid accumulation, and diminished functional status (measured via hand grip strength)

- The presence of two or more of the clinical characteristics can be used to establish the diagnosis of malnutrition

*Consensus decision – not validated measures or tools*

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Malnutrition Clinical Characteristics

MCC for **pediatric** patients, when only one data point is available, the recommended MCC include weight-for-height/length z-score, body mass index for age z-score, length/height-for-age z-score, and mid-upper arm circumference z-score.

- When additional data points are available, recommended indicators include weight gain velocity for children <2 years old, weight loss for children 2-20 years of age, deceleration in weight-for-length/height z-score, and inadequate nutrient intake.

*Consensus decision – not validated measures or tools*
Current Staffing Metrics

Varies by state and patient populations

Presumed best practice vs legal protections

Current Needs

Validation of MCC

- No systematic, universally accepted method of diagnosing malnutrition

Need for large scale data across populations and regions

- Malnutrition prevalence in hospitalized patients

Best practice for staffing
MCC and Staffing Study Overview

Goal is to validate MCC against medical outcomes

Quantify RD care/time required to improve outcomes

Results will inform staffing levels for inpatient

Study Design
Nutrition and Medical Outcomes

Primary medical outcomes for study are Length of Stay (LOS), mortality/morbidity, and readmissions/ED visits after discharge. DRG is a confounder/covariate.

Recruitment and Enrollment

Goal

- 60-120 facilities
- 6 host sites
- Approx 4800 subjects

Current numbers

- Working with ~65 adult facilities
- Working with ~42 pediatric facilities

Staggered training and enrollment
Subject enrollment to begin in July
Benefits

Networking

Continuing Education and Training

Participation in national initiatives with framework and support staff

FUN!!

Current Experiences

Networking

Recruitment to non-Academy members

Clinicians as researchers
  - Research experience
  - Generational differences

Hospital systems

Protected research time

Host/Training Site Recruitment
Advanced training

• Non-traditional methods
• Providing CEUs as part of research training
• Participation in national initiatives
• Fellowships

• Improved practice, stronger teams, improved patient outcomes

Fellowship

• Collaborative effort
• Advance skills
• Unique educational opportunities
• Expand practitioner expertise, including leadership skills
• Demonstrate RDN value
• Networking
• Passion
My Experience

- Collaborative effort
  - Networking
- Advance skills
  - Research
  - Leadership
- Unique educational opportunities
- Demonstrate RDN value

Together Towards Tomorrow

- MCC and NFPE as standard of care
- Large scale nutrition research utilizing clinicians
- Standardized recommendations
- Diversified training opportunities
- RDNs better situated to affect change
Thank you!

Questions?

Study Email: MCC@eatright.org
My Email: feedingbliss@gmail.com

References


References


Study Aims

Assess the interrater reliability of the MCC.

Determine the predictive validity of the adult and pediatric MCC relative to a portfolio of patient medical outcomes.

Determine the relationship between the adult and pediatric MCC and body composition measurements conducted via bioelectrical impedance analysis (BIA) in a subset of patients.
Study Aims

Identify the utility of BIA for body composition analysis in clinical settings.

Estimate the level of RDN care necessary to improve patient outcomes within the portfolio of outcomes. Specifically: quantify the dose (minutes of care and frequency of encounters) of RDN care that is associated with improved medical outcomes in patients already identified as requiring nutrition care, after adjusting for disease severity and other potential confounders.

Identify the additional level of RDN care necessary to improve the medical outcomes in patients who have been identified as malnourished using the MCC.